

Volume 21 contents

NUMBER 1 JANUARY 1997

RESEARCH

Enhancement of calcium signaling and proliferation responses in activated human T lymphocytes. Inhibitory effects of K⁺ channel block by charybdotoxin depend on the T cell activation state

Jos A.H. Verheugen, Françoise Le Deist, Veronique Devignot, Henri Korn 1

Nitric oxide activates skeletal and cardiac ryanodine receptors

Detcho Stoyanovsky, Timothy Murphy, Peter R. Anno, Young-Myeong Kim, Guy Salama 19

Use of La³⁺ to distinguish activity of the plasmalemmal Ca²⁺ pump from Na⁺/Ca²⁺ exchange in arterial myocytes

Hiroshi Shimizu, Mikhail L. Borin, Mordecai P. Blaustein 31

Temperature dependence of agonist-stimulated Ca²⁺ signaling in cultured endothelial cells

Jolanta Paltauf-Doburzynska, Wolfgang F. Graier 43

Analysis of plasma membrane Ca²⁺-ATPase expression in control and SV40-transformed human fibroblasts

Peter D. Reisner, Paul Brandt, Thomas C. Vanaman 53

A LED light calibration source for dual-wavelength microscopy

J.M. Beach 63

Measurement of changes in sarcoplasmic reticulum [Ca²⁺] in rat tail artery with targeted apoaequorin delivered by an adenoviral vector

Christopher M. Rembold, J.M. Kendall, Anthony K. Campbell 69

Excitation-contraction coupling of cultured human skeletal muscle cells and the relation between basal cytosolic Ca²⁺ and excitability

Ad A.G.M. Binders, Arie Oosterhof, Ron A. Wevers, Jacques H. Veerkamp 81

NUMBER 2 FEBRUARY 1997

RESEARCH

A ryanodine-sensitive calcium store in ascidian eggs monitored by whole-cell patch-clamp recordings

Christophe Arnoult, Mireille Albrieux, Anne Frédérique Antoine, Didier Grunwald, Isabelle Marty, Michel Villaz 93

Protein kinase C induced calcium influx and sustained enhancement of ciliary beating by extracellular ATP

Rachel Levin, Alex Braiman, Zvi Priel 103

Can the Indo-1 fluorescence approach measure brain intracellular calcium in vivo? A multiparametric study of cerebrocortical anoxia and ischemia

Laszlo Ligeti, Avraham Mayevsky, Zoltan Ruttner, Arisztid G. B. Kovach, Alan C. McLaughlin 115

Inositol-phosphoglycan inhibits calcium oscillations in hepatocytes by reducing calcium entry

Antonio Sanchez-Bueno, Mark R. Greenwood, Isabel Varela-Nieto, Isabel Marrero, Beatriz Gil, Jose M. Mato, Peter H. Cobbold 125

Does nitric oxide regulate capacitative Ca influx in HEK 293 cells?

Georg Bischof, Thomas F. Serwold, Terry E. Machen 135

II Volume 21 contents

Norepinephrine-mediated calcium signaling is altered in vascular smooth muscle of diabetic rat
Eric S.L. Tam, Donald G. Ferguson, David R. Bielefeld, John N Lorenz, Robert M. Cohen, Raymund Y.K. Pun 143

Ionophore-releasable luminal Ca^{2+} stores are not required for nuclear envelope assembly or nuclear protein import in *Xenopus* egg extracts
Ian C.B. Marshall, Tracey M. Gant, Katherine L. Wilson 151

Functional evidence for the regulation of cytosolic Ca^{2+} activity via V_{1A} -receptors and β -adrenoceptors in rat CCD
Leva Ankorina-Stark, Sabine Haxelmans, Eberhard Schlatter 163

Erratum 173

NUMBER 3 MARCH 1997

RESEARCH

A novel use for a carbodiimide compound for the fixation of fluorescent and non-fluorescent calcium indicators *in situ* following physiological experiments
M. Tymianski, G.M. Bernstein, K.M. Abdel-Hamid, R. Sattler, A. Velumian, P.L. Carlen, H. Razavi and O.T. Jones 175

Identification, expression pattern and potential activity of Na/Ca exchanger isoforms in rat pancreatic B-cells
F. Van Eylen, M. Svoboda, A. Herchuelz 185

Synchronized Ca^{2+} oscillations induced in Madin Darby canine kidney cells by bradykinin and thrombin but not by ATP
John-Arne Røttingen, Eric Camerer, Jacob Mathiesen, Hans Prydz, Jens-Gustav Iversen 195

Complex pattern of inhibition by Mg^{2+} of exocytosis from permeabilised eosinophils
Karen Y Larbi, Bastien D Gomperts 213

Rapid down regulation of Ca^{2+} signals induced by endothelin-1 in a human bronchial epithelial cell line
Markus Oles, Monika Ewert, Thomas Meyer, Lutz Pott 221

Determination of *in situ* dissociation constant for Fura-2 and quantitation of background fluorescence in astrocyte cell line U373-MG
Michael J. Petr, Robert D. Wurster 233

Two distinct Na^{+} currents control cytosolic Ca^{2+} pulsing in *Xenopus laevis* pituitary melanotrophs
Jack A. Valentijn, Karine Valentijn 241

Effect of cytoplasmic Ca^{2+} on (1,4,5)IP₃ formation in vasopressin-activated hepatocytes
G.St.J. Bird, J.F. Obie, J.W. Putney Jr 253

REVIEW

Type 3 inositol 1,4,5-trisphosphate receptor and capacitative calcium entry
James W. Putney Jr 257

NUMBER 4 APRIL 1997

RESEARCH

The effects of temperature upon calcium exchange in intact cultured cardiac myocytes
Fernando D. Marengo, Sheng-Yong Wang, Glenn A. Langer 263

Nucleoplasmic and cytoplasmic differences in the fluorescence properties of the calcium indicator Fluo-3
Carmen Perez-Terzic, Lisa Stehno-Bittel, David E. Clapham 275

Gating of the skeletal calcium release channel by ATP is inhibited by protein phosphatase 1 but not by Mg²⁺
Alois Sonnleitner, Sidney Fleischer, Hansgeorg Schindler 283

Calcium-activated potassium channels in cultured human endothelial cells are not directly modulated by nitric oxide
Marián Haburcák, Lin Wei, Félix Viana, Jan Prenen, Guy Droogmans, Bernd Nilius 291

Binding and activity of the nine possible regioisomers of myo-inositol tetrakisphosphate at the inositol 1,4,5-trisphosphate receptor
Neil T. Burford, Stefan R. Nahorski, Sung-Kee Chung, Young-Tae Chang, Robert A. Wilcox 301

Identification and characterization of inositol 1,4,5-trisphosphate receptors in rat testis
Stephen C. Tovey, Rita E. Godfrey, Phillip J. Hughes, Mokdad Mezna, Stephen D. Minchin,
Katsuhiko Mikoshiba, Francesco Michelangeli 311

Inhibition of mitochondrial calcium efflux by clonazepam in intact single rat cardiomyocytes and effects on NADH production
Elinor J. Griffiths, Shao-Kui Wei, Mark C.P. Haigney, Christopher J. Ocampo, Michael D. Stern,
Howard S. Silverman 321

ANNOUNCEMENT

The European Calcium Society 330

NUMBER 5 MAY 1997

RESEARCH

[Ca²⁺]_i oscillations and [Ca²⁺]_i waves in rat megakaryocytes
S. Tertyshnikova, A. Fein 331

Bradykinin regulates the histamine-induced Ca²⁺ mobilization via protein kinase C activation in human gingival fibroblasts
N. Niisato, Y. Ogata, S. Nakao, S. Furuyama, H. Sugiyama 345

Differences in Ca²⁺ pumping activity between sub-populations of human red cells
P.J. Romero, E.A. Romero 353

Time course of calcium transients derived from Fura-2 fluorescence measurements in single fast twitch fibres of adult mice and rat myotubes developing in primary culture
A.J. Bakker, S.I. Head, D.G. Stephenson 359

Mechanisms involved in ATP-evoked Ca²⁺ oscillations in isolated human granulosa-luteal cells
P.E. Squires, P.S.N. Lee, B. Ho Yuen, P.C.K. Leung, A.M.J. Buchan 365

Inhibition of store-dependent capacitative Ca²⁺ influx by unsaturated fatty acids
A. Gamberucci, R. Fulceri, A. Benedetti 375

Inhibition of hepatic inositol 1,4,5-trisphosphate receptor function by ethanol and other short chain alcohols
D.C. Renard-Rooney, M.B. Seitz, A.P. Thomas 387

NUMBER 6 JUNE 1997

RESEARCH

Co-ordinated regulation of the plasma membrane calcium pump and the sarco(endo)plasmic reticular calcium pump gene expression by Ca²⁺
T.H. Kuo, B-F. Liu, Y. Yu, F. Wuytack, L. Raeymaekers, W. Tsang 399

Bergmann glial cells in situ express endothelin_B receptors linked to cytoplasmic calcium signals
S. Tuschick, S. Kirischuk, F. Kirchhoff, L. Liefeldt, M. Paul, A. Verkhratsky, H. Kettenmann 409

Oscillatory Cl⁻ current induced by angiotensin II in rat pulmonary arterial myocytes: Ca²⁺ dependence and physiological implication
C. Guibert, R. Marthan, J-P. Savineau 421

Functional equivalence of native light-sensitive channels in the *Drosophila trp³⁰¹* mutant and TRPL cation channels expressed in a stably transfected *Drosophila* cell line
R.C. Hardie, H. Reuss, S.J. Lansdell, N.S. Millar 431

A high-resolution, confocal laser-scanning microscope and flash photolysis system for physiological studies
I. Parker, N. Callamaras, W.G. Wier 441

Intracellular calcium chelator BAPTA protects cells against toxic calcium overload but also alters physiological calcium responses
M.B. Collatz, R. Rüdel, H. Brinkmeier 453

Okadaic acid induces the release of Ca²⁺ from intracellular stores in ECV304 endothelial cells
T.J. Hepworth, A.M. Lawrie, A.W.M. Simpson 461

Subject index to Volume 21 469

Author index to Volume 21 473

© Pearson Professional Ltd 1997

ISSN 0143 4160

All rights reserved. Apart from fair dealing for the purposes of research or private study, or criticism or review, as permitted under the Copyright, Designs and Patent Act, 1988, this publication may only be reproduced, stored or transmitted, in any form or by any means, with the prior permission in writing of the Publishers (Churchill Livingstone, Robert Stevenson House, 1-3 Baxter's Place, Leith Walk, Edinburgh EH1 3AF) or, in the case of reprographic reproduction, in accordance with the terms of licences issued by the Copyright Licensing Agency Ltd, 90 Tottenham Court Road, London, W1P 9HE, UK.

Typeset by B. A. & G. M. Haddock, Midlothian, Scotland. Printed and bound by Bell & Bain Ltd, Glasgow.

